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(54) SYSTEM AND METHOD FOR PROVIDING GROUP COMMUNICATION SERVICES IN AN EXISTING COMMUNICATION SYSTEM

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(56) References Cited

U.S. PATENT DOCUMENTS

5,164,985 A	11/1992	Nysen et al.	380/9
5,387,905 A	2/1995	Grube et al.	340/825.52
5,436,893 A	7/1995	Burnett	370/392
5,450,405 A	9/1995	Maher et al.	370/58.2
5,479,477 A	12/1995	McVey et al.	370/58
5,491,835 A	2/1996	Sasani et al.	455/34.1
5,511,232 A	4/1996	O'Dea et al.	455/54.1
5,524,273 A	6/1996	Coley et al.	455/17
5,530,914 A	6/1996	McPeters	455/34.1
5,530,915 A	6/1996	Shaughnessy et al.	455/51.2
5,530,916 A	6/1996	Schultz	455/54.1
5,530,918 A	6/1996	Jasienski	455/56.1
5,535,426 A	7/1996	Leigh et al.	455/34.1
5,537,684 A	7/1996	Cassidy et al.	455/34.1
5,542,108 A	7/1996	Susuta	455/34.1
5,555,447 A	9/1996	Kozin et al.	455/72

5,564,071 A	10/1996	Liou et al.	455/56.1
5,612,959 A	3/1997	Thkase et al.	370/390
5,850,611 A	12/1998	Krebs	455/518
5,901,142 A	5/1999	Averbuch et al.	370/329
5,912,882 A	6/1999	Yafuso et al.	370/270
5,914,958 A	6/1999	Chaitz et al.	370/441
6,005,848 A	12/1999	Grube et al.	
6,081,601 A	6/2000	Raijisto	380/270
6,118,771 A	9/2000	Tajika et al.	370/328
H1894 H	10/2000	Fletcher et al.	455/403
6,160,544 A	12/2000	Hayashi et al.	345/327
6,301,255 B1	10/2001	Park	370/399

FOREIGN PATENT DOCUMENTS

EP 0566957	4/1993
WO 9501024	1/1995

OTHER PUBLICATIONS

TR45: Data Service Options for Spread Spectrum Systems: Async Data and Fax Services; Mar. 1999.

* cited by examiner

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(57) ABSTRACT

The present invention is a system and method for providing group communication services in an existing communication system. Group communications are enabled by installing a communications manager in a data network such as the Internet. The communications manager acts as a configurable switch, allowing communications from any group member to be transmitted to all other group members. The communications processed by the communications manager take the form of data packets, suitable for transmission over the data network. The data packets are generated by communication devices operating within the communication system. The use of the communications manager further allows users of other communication systems and devices to participate in group communications with each other.

15 Claims, 12 Drawing Sheets

